

7.2.1 Minimum Efficiency Standards for Appliances and Equipment

	Adjusted Volume (2) (Cu. Ft.)	Rated Maximum Electricity Use (kWh)		
<u>Refrigerator-Freezers (Auto Defrost) (1)</u>		<u>1990</u>	<u>1993</u>	<u>2001</u>
Top freezer w/o through-the-door ice service and all-refrigerators—auto defrost	21	955	685	478
Side freezer w/o through-the-door ice service	25	1,183	797	631
Bottom freezer w/o through-the-door ice service	25	1,183	781	574
Top freezer w/ through-the-door ice service	18	1,015	711	542
Side freezer w/ through-the-door ice service	29	1,428	992	694

	Adjusted Volume (2) (Cu. Ft.)	Rated Maximum Electricity Use (kWh)		
<u>Freezers (1)</u>		<u>1990</u>	<u>1993</u>	<u>2001</u>
Upright Freezers w/ Manual Defrost	25.7	702	529	452
Upright Freezers w/ Automatic Defrost	30.0	1,103	838	699
Chest Freezers and all other Freezers except Compact Freezers	24.8	590	433	389

	Minimum EER	Typical Maximum Electricity Use (kWh) (4)
<u>Room Air-Conditioners (3)</u>		
Less than 6,000 Btu/h	9.7	464
6,000 to 7,999 Btu/h	9.7	541
8,000 to 13,999 Btu/h	9.8	842
14,000 to 19,999 Btu/h	9.7	1,314
20,000 Btu/h or more	8.5	1,765

	Minimum EF (lbs./kWh)	Typical Maximum Energy Use
<u>Clothes Dryers (3)</u>		
Electric, Standard	3.01	835 kWh
Gas	2.67	32 therms

	Minimum EF (cu. Ft./kWh per cycle)	Minimum Modified EF (cu. Ft./kWh per cycle)	Typical Maximum Electricity Use (kWh) (5)
<u>Clothes Washers (3)</u>	<u>1994</u>	<u>2004</u>	<u>2007</u>
Top Loading, Standard	1.18	1.04	1.26
Horizontal-Axis	N.A.	1.04	1.26

	Minimum EF (cycles/kWh)	Typical Maximum Electricity Use (kWh)
<u>Dishwashers (3)</u>		
Standard Dishwasher	0.46	498

	Minimum EF (7)			Typical Maximum Energy Use		
<u>Water Heaters (6)</u>	<u>1990</u>	<u>1991</u>	<u>2004</u>	<u>1990</u>	<u>1991</u>	<u>2004</u>
Gas-Fired	0.54	0.54	0.59	208 therms	208 therms	191 therms
Oil-Fired	0.51	0.51	0.51	155 gallons	155 gallons	155 gallons
Electric Resistance	0.90	0.88	0.92	3456 kWh	3534 kWh	3380 kWh

Note(s): 1) DOE regulations mandate maximum electrical consumption for appliance based on its size. 2) AV = Adjusted Volume = Refrigerator Compartment + 1.63 * Freezer Compartment. 3) DOE regulations mandate minimum efficiency for appliance. 4) Electric use based on 750 hours of operation. 5) Includes electricity for water heater and clothes dryer. 6) DOE regulations mandate minimum efficiency for appliance based on its size. 7) Based on a 40-gallon tank.

Source(s): DOC/GPO, 2001 CFR, Title 10, Chapter 2, Part 430, Section 430.32, Jan. 1, 2001, p. 258-264 for minimum efficiencies; AHAM, 2000 Major Home Appliance Industry Factbook, Nov. 2000, Table 21, p. 28, for refrigerator and freezer sizes; DOE/EE, Final Rule Technical Support Document: Energy Efficiency Standards for Consumer Products: Clothes Washers, Dec. 2000, p. 10-8; LBNL, Energy Data Sourcebook for U.S. Residential Sector, May 1997, p. 102-103 for clothes dryers, p. 94 for dishwashers; DOE/EE, Technical Support Document: Energy Efficiency Standards for Consumer Products: Water Heaters, Apr. 2000, p. 9-14.